

**PATENT APPLICATION  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q79426

Masayuki Matsui, *et al.*

Appln. No.: 10/759,529

Group Art Unit: 1761

Filed: January 20, 2004

Examiner: Paden, Carolyn A

For: Oil and fat for producing confectionery, process for producing the same, and product using the same

**DECLARATION UNDER 37 C.F.R. § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Junichi Tamura, hereby declare and state:

THAT I am a citizen of Japan;

THAT I have received the degree of agricultural chemistry in 1990 from Osaka Prefecture University;

THAT I have been employed by Fuji Oil Co., Ltd. since 1990 and since 1998, I belong to Oils and Fats Development Department of Fuji Oil Co., Ltd.;

THAT I started the investigation of ascorbic acid from January, 2000;

THAT during the fiscal year of 2000, I established a laboratory process, analytical method for ascorbic acid and production process in factories in relation to the development of VC-added frying oil;

THAT this declaration is made in support of the above identified U.S. Patent Application and is provided to demonstrate difference of amount of ascorbic acid in fat/oil between conventional method and method of the above identified U.S. Patent Application;

THAT the following experiments were conducted under my direct supervision.

Conventional Method: Soybean oil (\*1) (500 g) of 60°C was poured into a Nutsche funnel of 4 cm diameter spread with 6 g of ascorbic acid so that ascorbic acid was contacted to soybean oil. After that, the Nutsche funnel is set on the upper area of a filter can. Pressure in the

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inner area of the filter can was reduced by vacuum pump. Soybean oil is compulsorily contacted to ascorbic acid from the upper Nutsche funnel (\*2) and filtered. It was received in a container placed in the filter can. (Time for the filtration was 30 minutes (\*3))

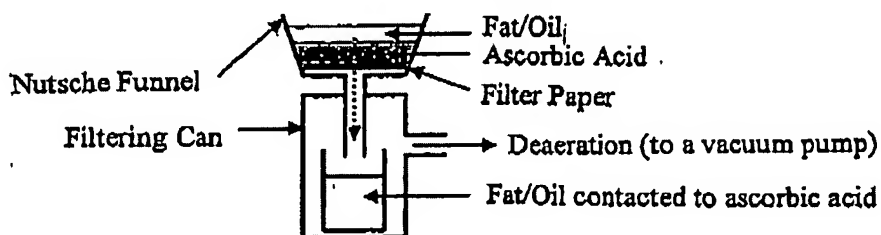
The fat/oil contacted to ascorbic acid was subjected to an analytical method for ascorbic acid by means of absorbance. The amount of ascorbic acid in the fat/oil was 2.0 ppm.

\*1: Although soybean oil is not a hard butter, it is used for ice coating, etc. as well. In the present application, an example is available as well.

\*2: Nutsche funnel is an instrument having a function of a funnel where filter paper is spread over the upper surface having pores. Oil was poured thereover and air is sucked from the bottom to make a compulsory filtration possible. Refer to Fig. 1.

\*3: Ascorbic acid is very hardly soluble in oil. Even in the conventional method where it is merely added or contacted to fat/oil, residue after dissolving have to be removed by filtration. The present method is appropriate in such a view that the conventional method is simulated. The contacting time in the experiment where the conventional method is simulated is too long when it is compared with the actual producing condition. Even when the contacting time in the experiment of our application is further extended, concentration of ascorbic acid in the fat/oil is around 2.0 ppm and is almost unchanged.

Fig. 1



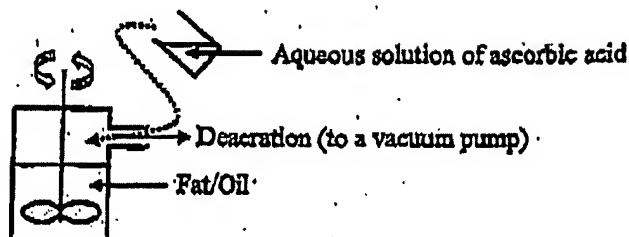
Method of the present application: Soybean oil (1,000 g) was heated to be 120°C *in vacuo*. After returning pressure to be ordinary pressure, 2 cc of 1% aqueous ascorbic acid solution was added. The mixture is allowed to stand for 10 minutes *in vacuo* again with stirring to give the fat/oil containing ascorbic acid. (\*4) The resulting ascorbic acid-containing fat/oil was subjected to analytical method for ascorbic acid by means of the absorbance. The amount of ascorbic acid in the fat/oil was 13.3 ppm.

\*4: Although there is no particular limitation for the experimental apparatus as long as it is able to be heated and stirred *in vacuo*, the constitution thereof as shown in Fig. 2 is acceptable.

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Fig. 2



When the same experiment was carried out using the hard butter ("Melano New SS7") which is the same as that used in the present invention, the result was 12.6 ppm.

As mentioned hereinabove, the result by the conventional method is 2 ppm even when an excessive contact was carried out while, according to the method the present application, an effective dispersion in oil can be achieved which is believed to be evidence that oil/fat of the present application is different as a product.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: January 11, 2008

  
Junichi Tamura